



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,661	10/30/2007	Peter Deixler	US030427US2	9703
65913	7590	12/28/2009		
NXP, B.V. NXP INTELLECTUAL PROPERTY & LICENSING M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			EXAMINER POMPEY, RON EVERETT	
			ART UNIT 2812	PAPER NUMBER
			NOTIFICATION DATE 12/28/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,661	<b>Applicant(s)</b> DEIXLER ET AL.	
	<b>Examiner</b> RON POMPEY	<b>Art Unit</b> 2812	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 13-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species I(Claims 1-12), there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/16/09.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-7 are rejected under 35 U.S.C. 102(a) as being anticipated by Knoll et al. (US 7205188).

Knoll discloses the limitations of:

In re claim 1: A method of fabricating an integrated circuit, the method comprising: providing a substrate (0, fig. 1a), creating at least one base-window (opening in 4, will etch 2/3, fig. 1a (not shown)) in a layer; forming a monocrystalline SiGe layer in at least one region (6/6a/6b, fig. 1b), and forming a polycrystalline SiGe layer (7, fig. 1b) elsewhere over the substrate.

In re claim 2: A method as recited in claim 1, further comprising forming a polycrystalline silicon layer (12, fig. 1d) over selectively exposed portions of the substrate.

In re claim 3: A method as recited in claim 2, further comprising forming a mask (10, fig. 1c) over a top surface, providing openings in selected locations of the mask, and removing the polycrystalline silicon layer (9, fig. 1c) to expose the selected portions of the substrate.

In re claim 4: A method as recited in claim 3, wherein the exposed portions of the substrate are monocrystalline silicon(0 (substrate is monocrystalline), fig. 1c).

In re claim 5: A method as recited in claim 1, wherein the integrated circuit includes a lateral pnp transistor(33a, 33b, 33c, fig. 1p).

In re claim 6: A method as recited in claim 1, wherein the integrated circuit includes a SiGe bipolar transistor (SiGe-HBT, col. 4, Ins. 27-30).

In re claim 7: A method as recited in claim 6, wherein the SiGe bipolar transistor includes the monocrystalline SiGe (col.4, Ins. 20-28).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2812

1. Claim 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knoll as applied to claim 1 above, in view of APA(admitted prior art).

2. Knoll, as indicated above, discloses all the features of the claims **except those disclosed by APA.**

a. APA discloses:

In re claim 8: A method as recited in claim 1, wherein the integrated circuit includes a varactor diode (page 1, Ins. 9-25).

In re claim 9: A method as recited in claim 1, further comprising forming a polysilicon resistor (page 1, Ins. 6-8).

In re claim 10: A method as recited in claim 1, wherein only one masking step is required to form a lateral pnp transistor, varactor diode and a polysilicon resistor (page 1, Ins. 17-19).

In re claim 11: A method as recited in claim 10, wherein the lateral pnp transistor is a silicon device, and includes a portion of the polycrystalline SiGe layer in each of a collector contact and an emitter contact (page 1, Ins. 1-32 (APA); the polycrystalline SiGe in 33a, fig. 1p of Knoll).

In re claim 12: A method as recited in claim 11, wherein the polycrystalline SiGe layer is disposed beneath a polycrystalline silicon layer (12, fig. 1d; Knoll).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the integrated circuit in Knoll, with the lateral pnp

Art Unit: 2812

transistor, varactor diode and a polysilicon resistor as taught by APA, because Knoll is silent in using lateral pnp transistor, varactor diode and a polysilicon resistor in the BiCMOS see APA page 1, Ins. 13-14.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RON POMPEY whose telephone number is (571)272-1680. The examiner can normally be reached on 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Garber can be reached on (571) 272-2194. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Walter L. Lindsay, Jr./  
Primary Examiner, Art Unit 2812

/R. P./  
Examiner, Art Unit 2812  
12/20/09

Application/Control Number: 10/587,661  
Art Unit: 2812

Page 6